

Remarks

This is in response to the final Office Action mailed on January 12, 2004. Claims 1-10 remain pending. Reconsideration and allowance are respectfully requested in view of the following remarks.

In section 1 of the Office Action, claims 1-3, 5-7, and 10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Takekoshi et al., U.S. Patent No. 5,600,619, in view of Park, U.S. Patent No. 5,986,998. This rejection is respectfully traversed.

Claim 1 recites, among other limitations, a movable portion on which at least a plurality of semiconductor laser elements irradiating an optical recording medium with laser beams and an objective lens converging laser beams emitted from the semiconductor laser elements are mounted. Claim 1 further recites that an optical axis of the semiconductor laser element having the shortest wavelength is aligned with the center of the optical axis of the objective lens.

Therefore, in an optical pickup configured as recited in claim 1, when the movable portion is moved, the plurality of semiconductor laser elements and the objective lens also move together with the movable portion since they are mounted thereon. Consequently, the optical positional relationship between the plurality of semiconductor laser elements and the object lens advantageously remains fixed because the elements and objective lens are fixed with respect to one another. Further, the optical axis of the semiconductor having the shortest wavelength is kept aligned with the center of the optical axis of the objective lens because, as previously noted, the semiconductor laser elements and the objective lens are fixed with respect to one another on the movable portion.

The rejection notes that Takekoshi fails to suggest a plurality of semiconductor laser elements mounted on a moveable portion, as well as that an optical axis of the semiconductor laser element having the shortest wavelength is aligned with the center of the optical axis of the objective lens.

Park discloses an optical pickup having only an objective lens that is movable, with the remaining optical components, including the semiconductor laser elements, being fixed independently from the objective lens. For example, Park states that "since the sizes of the first and second VCSELs 41 and 51 are within tens of micrometers (μm), aberrations caused by emitting light from different positions are negligible." Park, column 3, lines 46-49. In other

words, for the typical optical pickup configuration disclosed in Park wherein the center of the optical axis of the objective lens is movable and the semiconductor laser elements are fixed, the objective lens is shifted between the fixed first and second VCSELs (see, for example, VCSELs 41 and 51 in Figure 4 of Park), which are themselves positioned within tens of micrometers of one another.

Consequently, because Park discloses a movable objective lens that is moved between fixed semiconductor laser elements, Park fails to disclose or suggest a movable portion on which at least a plurality of semiconductor laser elements irradiating an optical recording medium with laser beams and an objective lens converging laser beams emitted from the semiconductor laser elements are mounted, as recited by claim 1. Further, Park necessarily also fails to suggest that an optical axis of the semiconductor laser element having the shortest wavelength is kept aligned with the center of the optical axis of the objective lens, as recited by claim 1.

For at least these reasons, neither Takekoshi nor Park, alone or in combination, renders claim 1 obvious. Reconsideration and allowance of claim 1, as well as claims 2, 3, 5-7, and 10 that depend therefrom, are respectfully requested.

In section 2 of the Office Action, claim 4 was rejected under section 103(a) as being unpatentable over Takekoshi and Park and further in view of Imafuji, U.S. Patent No. 6,546,035. In section 3 of the Office Action, claims 8 and 9 were rejected under section 103(a) as being unpatentable over Takekoshi and Park and further in view of Nakanishi, U.S. Patent No. 6,473,248. These rejections are respectfully traversed, and the correctness of the rejections is not conceded.

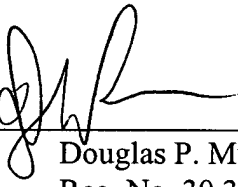
However, claims 4, 8, and 9 all depend directly or indirectly from claim 1. Neither Imafuji nor Nakanishi remedies the shortcomings of Takekoshi and Park noted above with respect to claim 1. Therefore, claims 4, 8, and 9 should be allowable for at least the same reasons as those provided above with respect to claim 1. Reconsideration and allowance of claims 4, 8, and 9 are respectfully requested.

Favorable reconsideration in the form of a Notice of Allowance is respectfully requested. If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Applicants' primary attorney-of record, Douglas P. Mueller (Reg. No. 30,300), at (612) 371-5237.

Respectfully submitted,

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